

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
17 June 2004 (17.06.2004)

PCT

(10) International Publication Number  
**WO 2004/051779 A1**

(51) International Patent Classification<sup>7</sup>: **H01M 8/04, 8/02**

[JP/JP]; 6-47-306, Funakoshi-cho, Yokosuka-shi, Kanagawa 237-0076 (JP).

(21) International Application Number:

PCT/JP2003/015325

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(22) International Filing Date: 1 December 2003 (01.12.2003)

(81) Designated States (*national*): CN, KR, US.

(25) Filing Language:

English

(84) Designated States (*regional*): European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR).

(26) Publication Language:

English

(30) Priority Data:

2002-351174

3 December 2002 (03.12.2002)

JP

**Published:**

— with international search report

— before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

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*For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*

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(75) Inventor/Applicant (*for US only*): **SAKAI, Hiromasa**

(54) Title: **FUEL CELL SYSTEM**

(57) Abstract: The fuel cell system comprises a fuel cell (1) that has an electrolyte membrane and generates power by using a fuel gas and an oxidizing agent gas; a storage device (51) for water that humidifies the fuel cell; and a controller (100). The controller (100) judges whether the fuel cell (1) can be humidified by using the water of the storage device (51), and limits the operating temperature of the fuel cell (1) to below a limit temperature that is lower than during normal operation in a case where it is judged that the fuel cell (1) cannot be humidified.

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**FURTHER INFORMATION CONTINUED FROM PCT/SA/ 210**

## Continuation of Box I.2

Present claims 1 to 15 relate to an extremely large number of possible apparatus and/or methods. Support within the meaning of Article 6 PCT and/or disclosure within the meaning of Article 5 PCT is to be found, however, for only a very small proportion of the apparatus and/or methods claimed. In the present case, the claims so lack support, and the application so lacks disclosure, that a meaningful search over the whole of the claimed scope is impossible. Consequently, the search has been carried out for those parts of the claims which appear to be supported and disclosed, namely those parts relating to the start-up of fuel cells (see e.g. description on page 2, lines 14-17).

The applicant's attention is drawn to the fact that claims, or parts of claims, relating to inventions in respect of which no international search report has been established need not be the subject of an international preliminary examination (Rule 66.1(e) PCT). The applicant is advised that the EPO policy when acting as an International Preliminary Examining Authority is normally not to carry out a preliminary examination on matter which has not been searched. This is the case irrespective of whether or not the claims are amended following receipt of the search report or during any Chapter II procedure.

# INTERNATIONAL SEARCH REPORT

International application No.  
PCT/JP 03/15325

## Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:  
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☒ Claims Nos.:  
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:  
see FURTHER INFORMATION sheet PCT/ISA/210
3. ☐ Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

## Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this International application, as follows:

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/JP 03/15325

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
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# INTERNATIONAL SEARCH REPORT

International Application No  
PCT/JP 03/15325

A. CLASSIFICATION OF SUBJECT MATTER  
IPC 7 H01M8/04 H01M8/02

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)  
IPC 7 H01M

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)  
EPO-Internal, INSPEC, COMPENDEX

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2001/001287 A1 (UENO MASATAKA ET AL) 17 May 2001 (2001-05-17) *page 1, '0012!; page 2, '0018!; claim 9*	1-15
X	WO 00/65676 A (ENERGY PARTNERS L C) 2 November 2000 (2000-11-02) *page 3, lines 11-16; page 8, lines 8-11; claims 35, 36*	1-15
X	US 2001/021468 A1 (SHIMANUKI HIROSHI ET AL) 13 September 2001 (2001-09-13) *page 1, '0012!; page 2, '0020!; page 3, '0025!*	1-13,15
A	US 2002/071972 A1 (HELMOLT RITTMAR VON ET AL) 13 June 2002 (2002-06-13) the whole document	1-15

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

### \* Special categories of cited documents:

- \*A\* document defining the general state of the art which is not considered to be of particular relevance
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- \*O\* document referring to an oral disclosure, use, exhibition or other means
- \*P\* document published prior to the international filing date but later than the priority date claimed

- \*T\* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- \*X\* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- \*Y\* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- \*G\* document member of the same patent family

Date of the actual completion of the international search

26 April 2004

Date of mailing of the international search report

06/05/2004

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# INTERNATIONAL SEARCH REPORT

International Application No  
PCT/JP 03/15325

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 2002/098396 A1 (NUIYA YOSHIO ET AL) 25 July 2002 (2002-07-25) the whole document -----	1-15